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DESIGNATION OF FISHBONE ANTENNA CONFIGURATIONS

ARMY NAVY CIA

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PIC/TP-1/59

JUNE 1959

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DESIGNATION OF FISHBONE ANTENNA CONFIGURATIONS

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The purpose of this Technical Publication is to establish a designation system for fishbone antenna configurations, to facilitate reporting and describing similar antennas in future PIC reports. A perspective view of a typical fishbone antenna is shown in Figure 1 and 13 different configurations are diagrammed in Figure 2. Eleven of these configurations have been identified on aerial photography of the Sino-Soviet Bloc. Two configurations (G and H) have not been identified. However, since C and D have been identified, the existence of G and H seems logical.

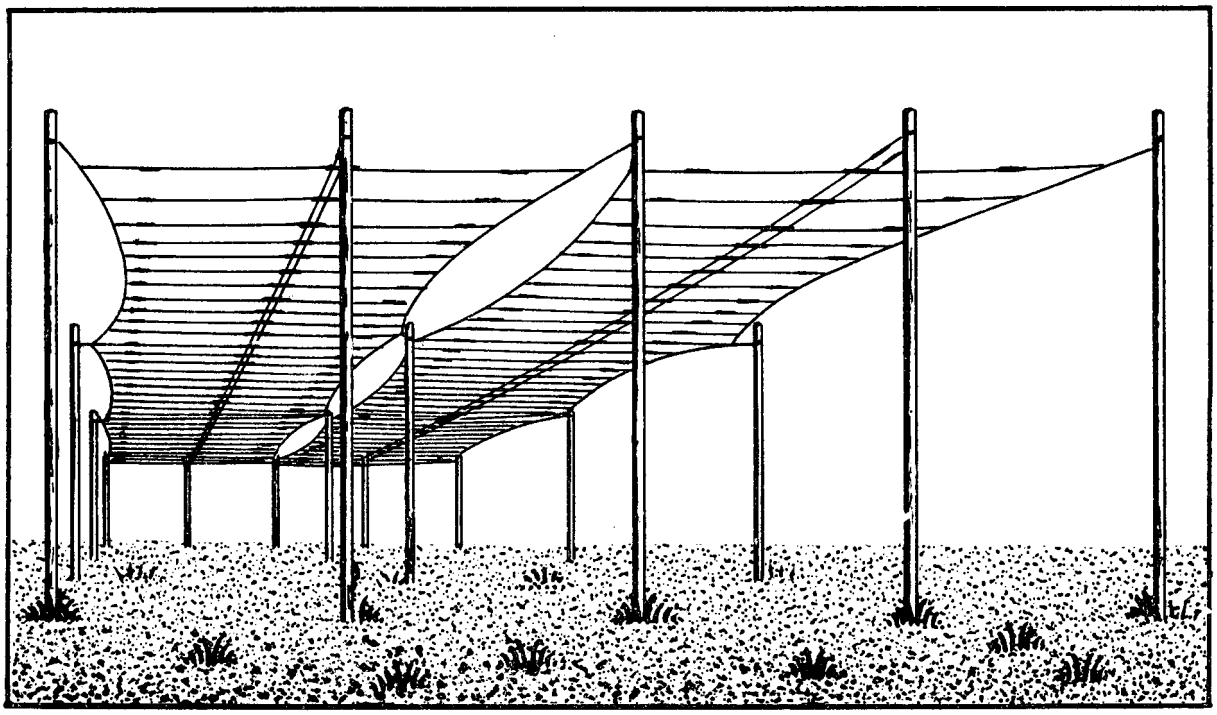

FIGURE 1. TYPICAL FISHBONE ANTENNA—This drawing represents a Type B antenna consisting of two Type A antennas side by side, using joint side poles.

The A configuration and the E configuration are the two basic "building blocks" from which all other known configurations of fishbone antennas are built. For example, two Type A configurations constructed side by side and utilizing common side poles become a type B configuration. A brief physical description of each configuration follows.

Type	Configuration of Poles	
A	3-2-2-3	Single bay - 3 sub-sections long.*
B	5-3-3-5	Double bay - 2 type A configurations side by side using joint side poles.
C	7-4-4-7	Triple bay - 3 type A configurations side by side using joint side poles.
D	9-5-5-9	Quadruple bay - 4 type A configurations side by side using joint side poles.
E	3-2-3	Single bay - 2 sub-sections long.*
F	5-3-5	Double bay - 2 type E configurations side by side using joint side poles.
G	7-4-7	Triple bay - 3 type E configurations side by side using joint side poles.
H	9-5-9	Quadruple bay - 4 type E configurations side by side using joint side poles.
I	5-3-3-5	Two bay for day/night operation - The wide bay used for night reception and the narrow for day reception.
J	7-4-6-3	One type F configuration and one type A configuration side by side using joint side poles. The type A portion is used for night reception; the type F for day reception.
K	5-3-3-5-3-3-5-3-3-5	Three type B configurations end to end utilizing joint end poles.
L	9-5-5-9-5-5-9	Two type B configurations end to end using joint end poles.
M	7-4-4-7	One type B configuration and one type A configuration side by side using joint side poles. The type A portion is used for night reception. The type B portion is used for day reception.

*The term sub-section is used ONLY to clarify the physical description of the two single bay fishbone configurations and does not constitute an electrical subsection since the entire length of the antenna is one electrical section.

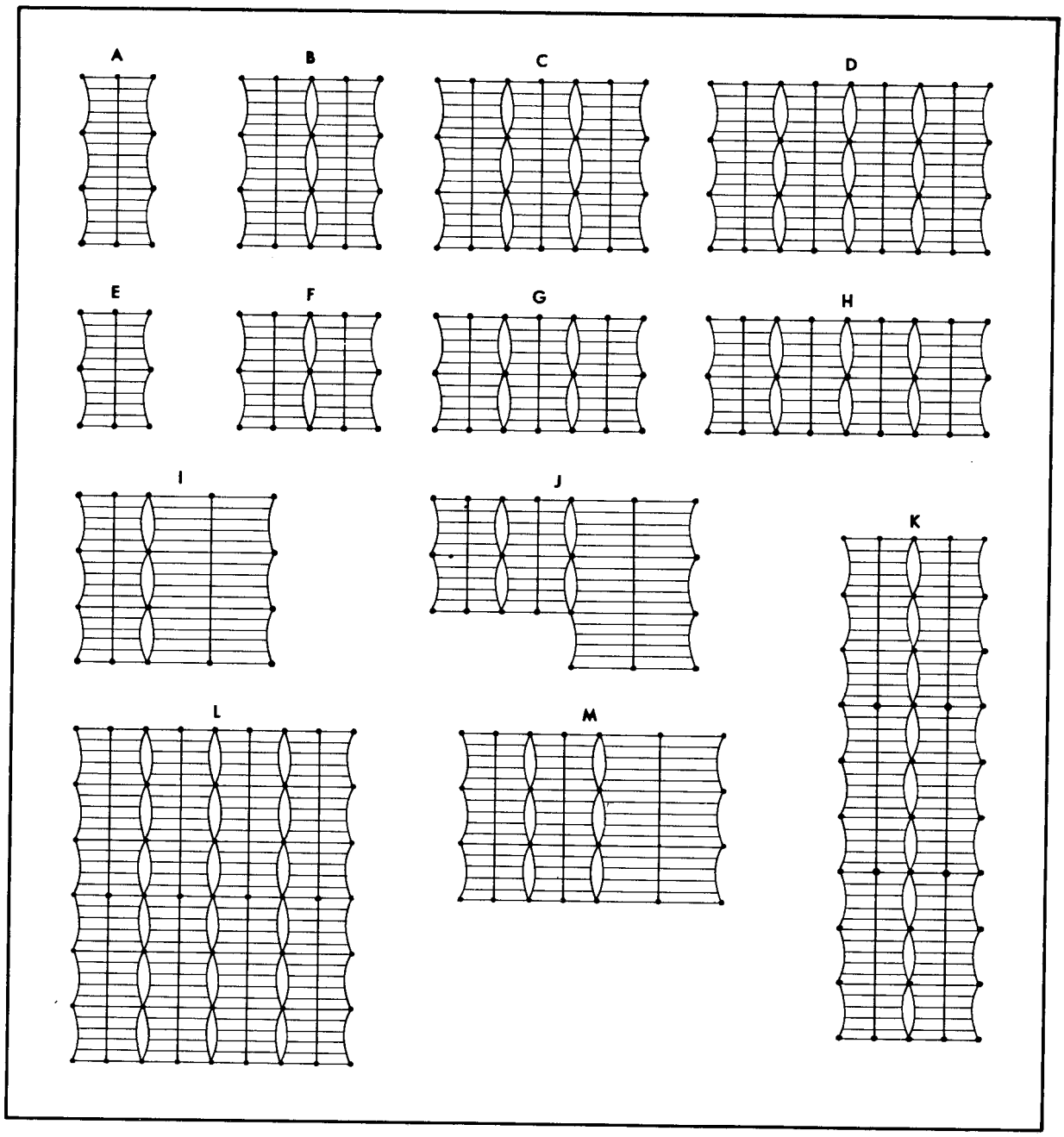

FIGURE 2. THIRTEEN FISHBONE ANTENNA CONFIGURATIONS.

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